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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/751,883	12/29/2000	Nicholas A. Lee	55876USA4A.002	8379
32692	7590	11/19/2004	EXAMINER	
3M INNOVATIVE PROPERTIES COMPANY			PATEL, TULSIDAS C	
PO BOX 33427			ART UNIT	
ST. PAUL, MN 55133-3427			PAPER NUMBER	
			2839	

DATE MAILED: 11/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/751,883

Applicant(s)

LEE ET AL.

Examiner

T. C. Patel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 and 20-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 17 is/are allowed.
- 6) ☒ Claim(s) 1-16 and 20-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

### DETAILED ACTION

1. Please note the change of Examiner. Claims 1-17 and 20-22 are pending in the case.

#### *Drawings*

2. Figure 1, 2A, 2B and 2C should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.121(d)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

See instant specification pages 1 and 2.

#### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-4, 10 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Admitted Prior Art.

For claim 1, the Admitted Prior Art instant figure 1, discloses, a first member (16, 18, aluminum) having a positive coefficient of thermal expansion, wherein at least a

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portion of the first member lies in a first plane; a second member (20, invar) stacked on a substantial length of the first member, wherein the second member has a coefficient of thermal expansion lower than the coefficient of thermal expansion of the first member, and a mount (22, 24) for the optical fiber, wherein the mount extends a predetermined distance from the first plane.

For claim 2, the mount comprises a first tower (22) and a second tower (24), for claim 3, the first and second towers comprise a mounting surface for the optical fiber (14), wherein the mounting surfaces of the first and second towers are substantially planar, for claim 4, the mounting surfaces of the first and second towers are substantially the same distance from the first plane.

For claim 10, the first member comprises a first metal (aluminum) and the second member comprises a second metal (invar, nickel) different from the first metal. For claim 20, the mount is adapted to adjust the distance of the fiber from the first plane.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 5-9, 11-16, 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Admitted Prior Art.

Admitted prior art, instant figure satisfies all the limitations of claims 5-7, however, does not specifically show the latch in the towers and material for the towers. The Admitted Prior Art does disclose optical fiber supported on towers. It would have been obvious to make the towers out of material such as invar, so as to be compatible with mounting brackets (16, 18) and provide notch in each of the towers extending from the top edge of the tower to the support surface in order to easily insert and support the optical fiber and also use metal bonding between the optical fiber and the tower, so as to firmly fix (also see instant specification page 1, line 27) retain the optical fiber in the notches of the towers.

For claim 9, the instant specification page 1, lines 27-29 and page 2, lines 1-6) describes the fiber being in axial tension and upon rise of ambient temperature, the distance between the towers is decreased (i.e. upon temperature rise, the fiber is compressed between the mounting towers). Also, the distance between the towers will increase upon fall of ambient temperature (due to contraction of brackets). For claim 11, at least one of the towers comprises the second metal (nickel, iron),

The admitted prior art figure 1 discloses all the structural limitations of claim 12-16, as shown above, however, the admitted prior art instant figure 1 does not specify the steps of making. The claimed method steps are counter part of the apparatus claimed. Therefore, it would have been obvious to one ordinary skill in the art at the time the invention was made to develop a particular method for the disclosed apparatus of the cited references. For claim 22, the composite thermal expansion coefficient would depend on relative lengths of first and second members, overlap distance and the spacing

between the towers, etc. and it would have been obvious matter of design choice to obtain an optimum thermal coefficient in order to maintain grating performance in working temperature range.

***Allowable Subject Matter***

7. Claim 17 is allowed.

None of the prior art teaches or suggest, alone or in combination a temperature compensating washer on the second end of the enclosure, the washer having a disk with an aperture, the disk having a first layer adjacent the second end of the enclosure and a second layer on the first layer, in combination with other limitations in the claim which is not found in the prior art reference of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments oil Statement of Reasons for Allowance."

***Response to Arguments***

8. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

*Contact*

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Javaid Nasri whose telephone number is 571 272 2095. The examiner can normally be reached on Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tulsidas C. Patel can be reached on 571 272 2800 ext 39. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any correspondence to this action may be mailed to:  
Commissioner for Patents  
Post Office Box 1450  
Alexandria, VA 22313-1450

For additional information regarding this new address, which was effective May 1, 2003, see Correspondence with the United States Patent and Trademark Office, 68 Fed. Reg. 14332 (March 25, 2003).

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Or faxed to: 703-308-7722 or 308-7724 (informal or draft communications should be clearly labeled

"PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to:

Crystal Plaza 4, Fourth Floor (receptionist)  
2201 South Clark Place, Arlington, Virginia

JN

November 13, 2004



TULSIDAS PATEL  
PRIMARY EXAMINER